

## WHAT IS A WATERSHED?

A watershed is a land area that collects and channels rainfall and snowmelt by gravity to creeks, streams, and rivers, and eventually to common outflow points such as reservoirs, bays, and the ocean.

Watersheds create links between everything that lives or lies within them. What happens upstream affects the quality of the natural environment of the people, animals and plants that live downstream. The health of the watershed influences the quality of the water that is collected for drinking.

## PROTECTING THE WILDERNESS & WATERSHED

Every day, millions of San Francisco Bay Area residents and businesses rely on high-quality water from the 459 sq. mile Upper Tuolumne River watershed. The San Francisco Public Utilities Commission collaborates with Yosemite National Park to improve resource stewardship, uphold wilderness ethics, foster Wild and Scenic River values, and protect water quality.

Through cooperative agreements, we work together to maintain trails, protect meadows, and improve facilities in the watershed. Collaborative efforts such as the Upper Tuolumne River Ecosystem Project provide for improved management of the river ecosystem downstream of O'Shaughnessy Dam.

**95% OF YOSEMITE NATIONAL PARK IS DESIGNATED FEDERAL WILDERNESS.**

**83 MILES OF THE UPPER TUOLUMNE RIVER IS DESIGNATED A FEDERAL WILD AND SCENIC RIVER.**

Additional Yosemite National Park regulations apply. visit: [Go.nps.gov/comp](http://Go.nps.gov/comp)

## REGIONAL SYSTEM RESERVOIRS

### HETCH HETCHY RESERVOIR

(within Yosemite National Park)  
 Capacity: 117 billion gallons  
 Use: Drinking water, power generation  
 Source: The 459 sq. mile Upper Tuolumne River watershed

### LAKE ELEANOR RESERVOIR

(within Yosemite National Park)  
 Capacity: 9 billion gallons  
 Use: Power generation, reserve water supply, recreation  
 Source: The 79 sq. mile Eleanor Creek watershed

### CHERRY LAKE RESERVOIR

(within Stanislaus National Forest)  
 Capacity: 88 billion gallons  
 Use: Power generation, reserve water supply, recreation  
 Source: The 117 sq. mile Cherry Creek watershed

For more information on the watersheds of the Hetch Hetchy Regional Water System, including those in the San Francisco Bay Area, and the management of the natural resources entrusted to our care, please visit: [www.sfpuc.org](http://www.sfpuc.org)

Photography accredited to Katherine Du Trol and Robin Scheswohl.



**Hetch Hetchy Reservoir and the Upper Tuolumne Watershed**  
 A protected and reliable regional water supply



A partnership of Yosemite National Park and the San Francisco Public Utilities Commission.

## THE HETCH HETCHY REGIONAL WATER SYSTEM

The Hetch Hetchy Regional Water System plays a key role in water delivery in the state of California. On a daily basis, this system provides high quality drinking water to 2.7 million residents and businesses across Southern Alameda, Northern Santa Clara, San Mateo, and San Francisco counties.

The system generates 1.6 billion kilowatt hours of clean hydroelectric power annually for the City and County of San Francisco and the Modesto and Turlock Irrigation Districts.

## 20TH CENTURY ENGINEERING MARVEL

From its earliest days, water has been key to the development of the San Francisco Bay Area.

Following the devastating 1906 San Francisco earthquake and fire, Congress passed the 1913 Raker Act granting the City and County of San Francisco access to land within Yosemite National Park and Stanislaus National Forest needed to build the system.

The Hetch Hetchy Project was one of the most ambitious public utility projects undertaken in the early 20th century. It was built entirely with Bay Area water customer funds and continues to be funded by water system customers.

The project began in 1914, under City Engineer Michael Maurice O'Shaughnessy. The backbone of the project was the 68-mile Hetch Hetchy Railroad, built to transport workers, machinery, and supplies to the dam site. The Hetch Hetchy Project - a complex system of pipelines, tunnels, powerhouses, dams and reservoirs - first delivered water to the Bay Area in October 1934.

**HETCH HETCHY RESERVOIR, HELD BEHIND O'SHAUGHNESSY DAM, IS THE KEYSTONE OF THIS CLEAN, EFFICIENT WATER AND POWER DELIVERY SYSTEM**



**PROTECTED**  
The water collected here is snowmelt and precipitation originating on the snowcapped granite peaks of the protected Yosemite Wilderness.



**NO FILTRATION**  
Water stored in Hetch Hetchy Reservoir's granite basin consistently meets and exceeds federal and state standards for safe drinking water. No filtration of this water is necessary.



**RELIABLE DELIVERY**  
This reservoir captures and stores water for reliable delivery throughout the year and across multiple years, especially during dry periods.



**GRAVITY DRIVEN**  
The Regional Water System uses gravity to sustainably transport water from Hetch Hetchy down to the Bay Area.



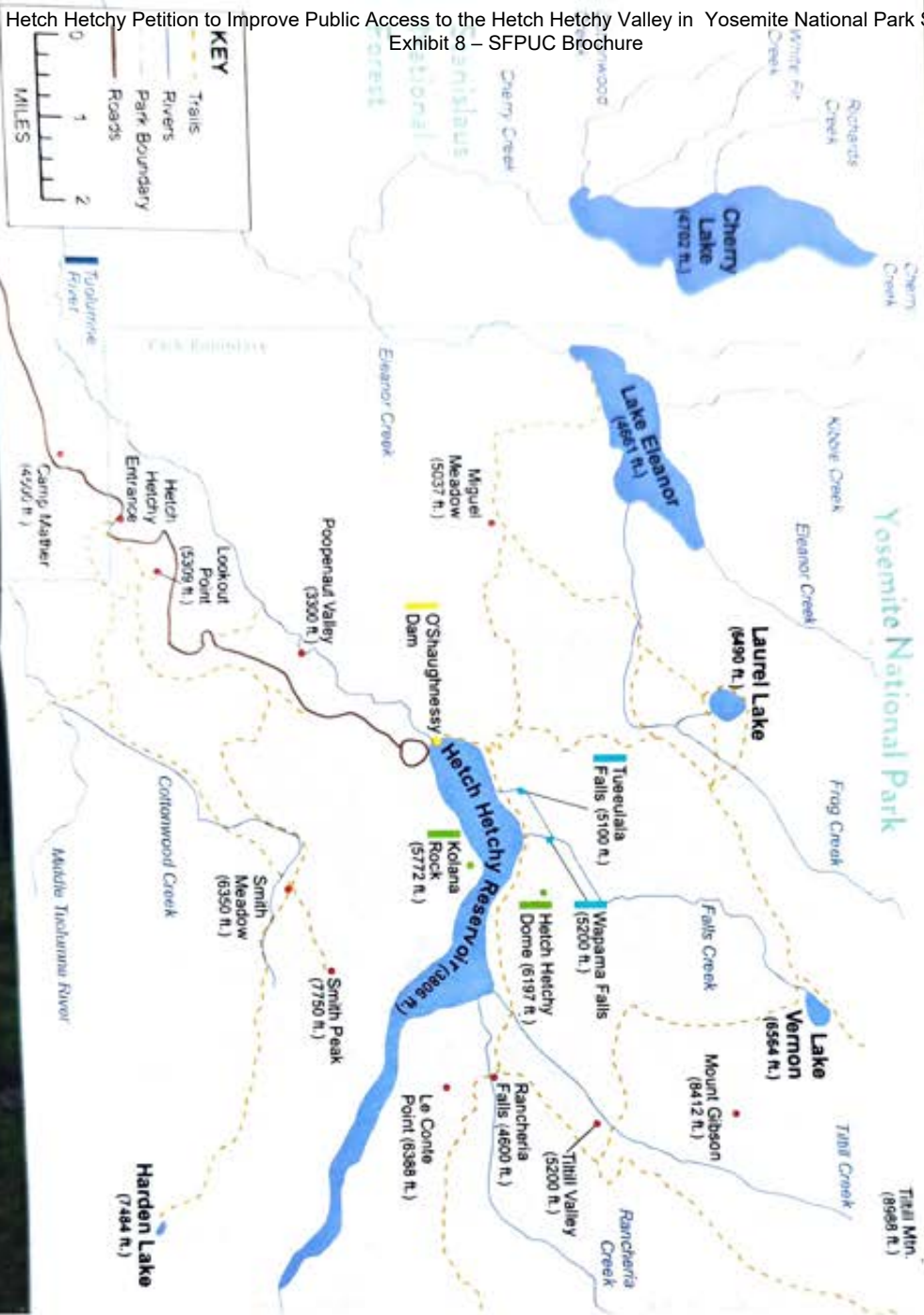
**RENEWABLE, DEPENDABLE ELECTRICITY**  
Water stored in Hetch Hetchy, Cherry, and Eleanor Reservoirs generates renewable, dependable hydropower.

**THE HETCH HETCHY REGIONAL WATER SYSTEM PROVIDES WATER FOR 2.7 MILLION PEOPLE ON A DAILY BASIS**



Water being released from O'Shaughnessy Dam downstream to the Tuolumne River

# HETCH HETCHY AND THE UPPER TUOLUMNE RIVER WATERSHED



American Black Bear in Yosemite National Park

**O'SHAUGHNESSY DAM**  
 O'Shaughnessy Dam stands 312 feet above the streambed, extending 910 feet to each canyon wall. The 8-mile-long Hetch Hetchy Reservoir can hold approximately 117 billion gallons of water at a maximum depth of 306 feet.

**TUOLUMNE WILD AND SCENIC RIVER**  
 Downstream of O'Shaughnessy Dam, the diverse ecosystem of the Tuolumne River is maintained by water released from the dam.

**WATERFALLS**  
 Tueulala and Wapama Falls are just two of the waterfalls that empty into Hetch Hetchy Reservoir. Both waterfalls drop almost 1,000 feet from cliffs and are best viewed in early spring. Out of view, but accessible by trail, is Rancheria Creek which has a series of waterfalls just above Hetch Hetchy Reservoir.

**DOMES AND CLIFFS**  
 North Dome and Hetch Hetchy Dome are located on the north side of the reservoir. Kolana Rock is on the south side and is an active breeding area for peregrine falcons.

**TREES**  
 California black oak, big leaf maple, ponderosa pine, dogwood, and incense cedar.

**WILDLIFE**  
 Black bear, mule deer, mountain lion, golden marmot, coyote, bobcat, California mountain kingsnake, Sierra newt, rattlesnake, and rainbow trout.

**WILDFLOWERS**  
 California poppy, lupine, wallflower, heuchera, shooting star, waterfall buttercup, bright California fuchsia, brodiaea, dwarf alpine monkey flower, clarkia, and Sierra lessingia.

**BIRDS**  
 Steller's jay, woodpecker, hummingbird, titmouse, peregrine falcon, bald eagle, golden eagle, red-tailed hawk, common merganser, osprey, great horned owl, robin, American dipper, and egret.

# HIKING

The Hetch Hetchy area provides for a long hiking season, and the varied trails include **something for everyone**. Please be mindful of weather conditions, including heat, and carry plenty of water. Please also wear sunscreen, watch for rattlesnakes and poison oak, and exercise extreme caution near flowing water and waterfalls.

## DAY HIKES

### WAPAMA FALLS (moderate, 5-mile round trip)

Trail begins through the tunnel across the dam, and continues above the northern shoreline of the reservoir. Includes spectacular views of Tuleulala and Wapama Falls.

### LOOKOUT POINT (moderate, 2-mile round trip)

A rocky outcropping overlooking Hetch Hetchy. Trail begins near the entrance station.

### POOPENAUT VALLEY (strenuous, 2.5-mile round trip)

Reached via signed trailhead four miles past the entrance station. Descend 1,229 feet to the Tuolumne River.

## LONGER HIKES: BACKPACKING

### RANCHERIA FALLS (strenuous, 13-mile round trip)

Reached as a long day hike or a backpacking trip by continuing past Wapama Falls for beautiful views of the valley and waterfalls. Access Tiltill or Rancheria mountains and the vast northwest wilderness of Yosemite from this area.

### SMITH PEAK (strenuous, 13 to 16-mile round trip)

The highest point in the area, offering outstanding views.

#### Trailhead options:

**Route #1** begins six miles beyond the entrance station, 13 miles, 3,700 feet elevation gain.

**Route #2** begins at the entrance station, 16 miles round trip, 3,300 feet of elevation gain.

### THE LAUREL/VERNON/RANCHERIA LOOP

Strenuous, 29-mile round trip. A multi-day hike offering spectacular views of Hetch Hetchy, High Sierra lakes, and

# LEAVE NO TRACE

## DO YOUR PART TO PROTECT WILDERNESS, WILDLIFE, AND WATER QUALITY.

### WALK AND CAMP ON DURABLE SURFACES

Use established trails, campsites, rock, and gravel to minimize your impact. Walk single file, keep groups small and camp 100 feet (40 paces) away from water.

### PACK OUT WHAT YOU PACK IN

Pack out toilet paper, hygiene products, leftover food, trash, and litter from campsites, rest areas, and trails.

### WASH 300 FEET (120 PACES) AWAY

from water sources that are less than 1 mile from Hetch Hetchy Reservoir. Use small amounts of biodegradable soap to wash yourself or dishes and scatter strained dishwasher onto soil.

### USE RESTROOM FACILITIES

or bury human waste: dig holes at least 6 inches (15 centimeters) deep, at least 100 feet (40 paces) from trails and campsites, and at least 300 feet (120 paces) from the high-water mark of streams and lakes.

### DON'T START A FOREST FIRE

Refer to Yosemite National Park or Stanislaus National Forest for fire use regulations.

### LEAVE WHAT YOU FIND

Take only memories and photographs.

## PROTECT OUR PARKS

**PETS:** Dogs and other pets are prohibited on all trails and on the dam. Wild animals are threatened by domestic animals in their territory and may endanger your pets. Dogs are only allowed in the parking area and must be leashed at all times.

### PROTECT WILDLIFE:

Keep your distance from animals, even if they approach you. Dispose of trash in animal-resistant trash cans or dumpsters, and keep your food and trash from wildlife by storing it properly, day and night. Speeding kills hundreds of animals each year; obey posted speed limits!

### PROTECT WATER QUALITY:

Swimming, bathing, and boating are prohibited in Hetch Hetchy Reservoir and in any watercourse within 1 mile of the reservoir to maintain a clean source of drinking water.

### FISHING:

Fishing is allowed year-round in Yosemite National Park, including Hetch Hetchy Reservoir. A valid California Fishing License is required, and state fishing regulations apply. visit: [www.wildlife.ca.gov/Regulations](http://www.wildlife.ca.gov/Regulations). Fishing from the top of O'Shaughnessy Dam is prohibited.

